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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,815

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Erik Bijpost

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WENDEROTH, LIND & PONACK, L.L.P.

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SUITE 800

WASHINGTON, DC 20006-1021

EXAMINER

RUMP, RICHARD M

ART UNIT

PAPER NUMBER

4181

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01/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,815	Applicant(s) BIJPOST ET AL.	
	Examiner Richard M. Rump	Art Unit 4181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1: 04/06/2006 2: 07/11/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Application

Claims 1-14 are pending and presented for examination.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on 6 April 2006 and 11 July 2007 are acknowledged and the references listed thereon have been considered by the examiner on the attached copy of the PTO-1449 forms.

Claim Objections

Claims 3, 5, and 6 is objected to because of the following informalities: The word of is missing between 'the amount' and 'polar organic compound'. Appropriate correction is required.

Claim Rejections - 35 USC § 112

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then

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narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 10 recites the broad recitation 'at least 75%', and the claim also recites 'more preferably at least 95%' which is the narrower statement of the range/limitation. In the present instance, claim 13 recites the broad recitation '100 to 10000 ppm', and the claim also recites 'preferably 500 to 3000 ppm' which is the narrower statement of the range/limitation.

Claim 14 provides for the use of a urea composition, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 14 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Velzel *et al.* (hereinafter referred to as Velzel, WO 0220471 – Provided in IDS).

Regarding claims 1, 2 and 3, Velzel discloses a method for improving the crushing strength, impact resistance, and the compressibility of urea granules (page 1, lines 1-4). This methodology requires the addition of a molten urea made up of polyvinyl compounds along with an organic molecule made up of polyvinyl compounds (page 2, line 34) and an organic molecule consisting of 1-10 carbon atoms (carboxylic acid, hydroxyl, or amide groups – page 3, lines 29-31 or those mentioned in table 5) and 2-5 polar organic groups (water -- page 2, line 17).

Regarding claims 5 and 6, Velzel discloses that the amount of polar organic compound to be added is at most 5% based on the amount of urea (page 2, line 17). It would be inherent that this would well overlap, at least partially the 1 to 20 range recited in instant claim 6.

Regarding claim 7, Velzel discloses a general formula $(CHX-CHY)_n$ (page 2, line 35) where n is between 4 and 10,000 and X and Y are independent of one another and are selected from the group consisting of hydrogen atom, or a polar organic group, in

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such a way that the admixed amount of water is at most 5 weight % based on the amount of urea (page 2 line 36 bridging page 3 line 3).

Regarding claim 8, Velzel further states that a carboxylic acid group, ester group, hydroxyl group, an amine group, or an amide group can be the X and Y used in instant claim 7 (page 3, lines 21-25).

Regarding claims 9 and 10, Velzel discloses that X is substantially a hydrogen atom (page 3, line 25) and Y is substantially a hydroxyl group (page 3, line 25, 29 and 34). 70% to 95% of Y consists of a hydroxyl group (page 3, lines 30-35).

Regarding claims 11-13, the aqueous solution of the urea additive has a concentration between 500 and 3000 ppm according to Velzer (page 4 lines 13-15). This ppm based on the total amount of urea would inherently fall between 1 and 20 weight %.

Regarding claim 14, claim 16 of Velzer expressly discloses a composition which reads upon the composition of urea used in instant claim 1. There is an urea additive, a polyvinyl compound, and imbues the improved crushing strength, compressibility, and impact resistance on the urea granules.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Velzel (WO 0220471) with the Meriam-Webster entry on Polyol as evidentiary reference.

Regarding 4, the limitations of claim 1 are met by Velzel as described in the supra 102 rejection. However, Velzel does not expressly state the usage of pentaerythritol. However, it would have been obvious to try pentaerythritol as the used polyol since Velzel mentions the usage of numerous other polyols such as polyaspartic acid, poly(acrylic acid), poly(vinylalcohol) (see tables 1, 3, and 5) that may be used to create the strengthened urea. It is known in the art that pentaerythritol, polyaspartic acid, poly(acrylic acid), and poly(vinylalcohol) are a functional equivalent for polyols as by definition a polyol is any alcohol containing multiple hydroxyl groups. The motivation in using any of the supra mentioned compounds is to increase the industrial application by adding more possible compounds to use.

Citation of Relevant Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) US 4063919 (Provided in IDS) -- Discloses a method of creating a stronger urea compound.

b) US 5462981 (Provided in IDS) -- Discloses a method of creating a stronger urea compound.

c) US 6217630 -- Discloses a fertilizer composition with an improved strength urea.

Conclusion

Claims 1-14 were rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard M. Rump whose telephone number is (571)270-5848. The examiner can normally be reached on Monday through Friday 7:30 AM-5:00 PM (-5 GMT).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571)272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/R. M. R./

Examiner, Art Unit 4181

/Vickie Kim/

Supervisory Patent Examiner, Art Unit 4181